

Amendments to the Claims

13. (New) An audio signal recording disc encoded by a method which comprises the steps of:

implementing matrix operation among first multiple-channel digital audio signals including front channels and surround channels to generate second multiple-channel audio signals correlating with each other, the first multiple-channel digital audio signals relating to a same sampling frequency;

subjecting the second multiple-channel signals to lossless encoding to convert the second multiple-channel signals into an encoding-resultant signal from which a decoding side can reproduce the second multiple-channel audio signals;

wherein the subjecting step comprises:

1) selecting a first sample among samples of each of the second multiple-channel audio signals for every prescribed interval of frame;

2) selecting one from each channel's different linear prediction methods and predictively encoding each of the second multiple-channel signals according to the selected one of each channel's different linear prediction methods, wherein the each channel's different linear prediction methods are of predicting each of the second multiple-channel audio signals from a past condition of each of the second multiple-channel audio signals for every prescribed interval of subframe which is a subdivision of the frame to generate each channel's different prediction signals for each of the second multiple-channel audio signals, and generating each channel's prediction-error signals representing differences between each of the second multiple-channel audio signals and each channel's different prediction signals respectively, and wherein selected each channel's linear prediction method generates a smallest of each channel's prediction-error signal; and

3) generating a signal of a predetermined format having a header information area and a user data area, and loading the user data area with the selected first

samples from said step 1) of selecting a first sample among samples of each of the second multiple-channel audio signals, the smallest each channel's prediction-error signals generated by the selected linear prediction method from said step 2), and an information piece representing the selected linear prediction methods from said step 2).

14. (New) A method of recording data to or reproducing data from the audio signal recording disc according to claim 13.

15. (New) A method of network-based communication, comprising the steps of:
transmitting and receiving a signal of a predetermined transmission packet format to and from a communication line, wherein the signal has been generated by an audio signal encoding method comprising:

implementing matrix operation among first multiple-channel digital audio signals including front channels and surround channels to generate second multiple-channel audio signals correlating with each other, the first multiple-channel digital audio signals relating to a same sampling frequency;

subjecting the second multiple-channel signals to lossless encoding to convert the second multiple-channel signals into an encoding-resultant signal from which a decoding side can reproduce the second multiple-channel audio signals;

wherein the subjecting step comprises:

1) selecting a first sample among samples of each of the second multiple-channel audio signals for every prescribed interval of frame;

2) selecting one from each channel's different linear prediction methods and predictively encoding each of the second multiple-channel signals according to the selected one of each channel's different linear prediction methods, wherein the each channel's different linear prediction methods are of predicting each of the second multiple-channel audio signals from a past condition of each of the second

multiple-channel audio signals for every prescribed interval of subframe which is a subdivision of the frame to generate each channel's different prediction signals for each of the second multiple-channel audio signals, and generating each channel's prediction error signals representing differences between each of the second multiple-channel audio signals and each channel's different prediction signals respectively, and wherein selected each channel's linear prediction method generates a smallest of each channel's prediction-error signal; and

3) generating a signal of a predetermined format having a header information area and a user data area, and loading the user data area with the selected first samples from said step 1) of selecting a first sample among samples of each of the second multiple-channel audio signals, the smallest each channel's prediction-error signals generated by the selected linear prediction method from said step 2), and an information piece representing the selected linear prediction methods from said step 2).

16. (New) A method of reproducing data which is provided via the network-based communication according to claim 15.

Amendments to the Specification

Insert after the title of the invention:

RELATED APPLICATIONS

This application is a divisional of U.S. application No. 10/096,276, filed March 13, 2002 which in turn is a divisional of U.S. application No. 09/394,688, filed September 13, 1999 now U.S. patent number 6,463,410.

Page 46, third full paragraph:

The embodiment of Fig. 15 includes a lossless encoder 2E and a lossless decoder 3E which replace the lossless encoder 2D and the ~~loss~~ lossless decoder 3D (see Fig. 1) respectively. The lossless encoder 2E follows a channel correlation circuit "A". The lossless decoder 3E precedes a channel correlation circuit "B".

Respectfully submitted,


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